

DELTA

American Pattern and Hi-Speed Rotary

FILES



SEATTLE

3433 AIRPORT WAY SOUTH
AT SPOKANE STREET
MAin 2-5567

SPOKANE

EAST 202 TRENT AVENUE - NEAR DIVISION STREET
TEmple 8-8288

TACOMA

2316 JEFFERSON AVENUE
AT 23RD STREET
FULton 3-2431

SUGGESTED RESALE PRICES FOR INDUSTRIAL CONSUMERS
SMALL ORDER SURCHARGE

A 10% surcharge will apply to all orders specifying
 less than 5 dozen American Pattern Files or 3 dozen Milled Tooth Files.

AMERICAN PATTERN
INDUSTRIAL FILES

4" 6" 7" 8" 10" 12" 14" 16" 18"									4" 6" 8" 10" 12" 14"					
BISCA									THREE SQUARE					
Flat	...	...	...	8.88	11.64	16.08	21.60	30.00	Bastard	...	9.12	11.16	13.68	17.64
Square	...	...	...	10.80	13.68	18.72	25.20	...	2nd Cut	...	10.20	12.48	15.12	...
Hf. Round	...	...	...	12.36	15.00	19.44	25.44	...	Smooth	...	10.68	13.32	16.08	...
FLAT									WARDING					
Bastard	5.64	6.60	...	8.04	10.56	14.52	19.92	26.52	Bastard	6.00	7.32	9.48	13.08	...
2nd Cut	6.60	7.20	...	9.12	12.12	16.44	22.92	30.12	2nd Cut	7.20	8.88	11.16	15.12	...
Smooth	7.08	8.04	...	9.96	13.08	18.12	25.08	33.24	Smooth	8.04	9.48	12.36	16.44	...
HAND									PILLAR					
Bastard	...	6.60	...	8.04	11.16	16.08	22.44	...	Bastard	...	6.60	8.04	11.16	16.08
2nd Cut	...	7.68	...	9.48	13.08	18.36	25.44	...	2nd Cut	...	7.68	9.48	13.08	...
Smooth	...	8.40	...	10.08	14.04	20.28	27.24	...	Smooth	...	8.40	10.20	14.04	...
HALF ROUND									KNIFE					
Bastard	7.20	9.12	...	11.16	13.68	17.64	23.16	30.72	Bastard	8.04	10.32	12.72	15.12	...
2nd Cut	8.40	10.20	...	12.48	15.12	19.56	25.44	...	2nd Cut	9.12	11.16	13.68	17.28	...
Smooth	9.12	10.68	...	13.32	16.08	20.88	27.36	36.12	Smooth	9.48	11.88	14.28	18.36	...
SQUARE									ALUMINUM					
Bastard	5.64	6.96	...	8.28	11.16	15.24	20.88	28.08	Half Round	...	15.84	18.00	20.28	23.88
2nd Cut	6.96	7.68	...	9.48	12.72	17.28	24.00	...	LEAD FLOAT or BABBITT					
Smooth	7.32	8.28	...	10.56	13.68	19.20	26.16	...	Flat	...	...	9.48	12.84	17.64
ROUND									Half Round	...	...	12.72	16.08	21.12
Bastard	4.68	5.28	5.88	6.48	8.40	11.16	16.08	21.96	FOUNDRY					
2nd Cut	5.28	6.00	...	7.32	9.48	12.84	18.36	...	Flat	...	...	8.04	10.56	14.52
Smooth	5.88	6.84	...	8.04	10.56	14.04	19.56	...	Half Round	...	...	11.16	13.68	17.64
MISCELLANEOUS									LATHE					
All Work	...	...	...	8.40	...	...	...	...	Long Angle	...	...	...	12.84	17.64
Auger Bit	(Flat Type)	6.00	...	...	...	...	...	...	...	...	...	...	...	23.88
Doctor	...	...	...	...	...	31.44	...	...				

AMERICAN PATTERN
SAW and MILL FILES

4" 5" 5 1/2" 6" 7" 8" 9" 10"								4" 6" 7" 8" 10" 12" 14" 16"						
TAPER								MILL						
...	...	...	5.04	6.24	7.80	...	11.64	Bastard	4.44	4.68	5.16	5.64	7.44	10.80
SLIM TAPER								2nd Cut	5.16	5.88	...	7.08	9.12	12.24
3.00	3.24	...	4.08	5.04	6.00	...	8.40	Smooth	5.64	6.60	...	7.80	10.08	13.44
EXTRA SLIM TAPER								MILL 1 R.E.						
3.00	3.24	3.96	4.08	5.04	6.00	...	...	Bastard	...	5.64	...	6.96	9.12	12.00
DOUBLE EXTRA SLIM								MILL 2 R.E.						
3.00	3.24	...	4.08	5.04	6.00	...	...	Bastard	...	6.36	...	7.80	10.08	...
SPECIAL HAND SAW								CROSS CUT						
...	...	3.96	...	5.04	6.00	...	...	Grt. Amer.	...	9.12	...	11.16	13.68	...
BLUNT BANDSAW								Lance Tooth	...	5.64	6.24	6.96	9.72	...
Regular	...	...	6.84	...	9.72	...	...	CANT SAW						
Slim	...	...	5.64	...	7.68	...	...	...	...	8.04	...	9.48	12.96	...
WEB SAW								CHAIN SAW						
...	...	8.40	9.12	...	...	...	...	Round Blunt						
DOUBLE ENDER								#316-3/16" Diam.	...	...	7.80	...	...	...
...	...	...	5.16	5.16	5.64	6.36	7.08	#317-3/8" Diam.	...	...	7.80	...	...	...
								#318-1/4" Diam.	...	...	7.80	...	...	...
								#319-9/32" Diam.	...	...	8.04	...	...	...
								#320-1/8" Diam.	...	...	8.28	...	...	...
								#322-3/8" Diam.	...	...	8.76	...	...	...

STANDARD PACKAGES—All files up to and including 10 inches
 packed 1 dozen to box. Sizes 12 inches and larger packed 1/2 dozen
 to box. Less than full boxes plus 10%.

DELTA
R-60

DELTA FILE WORKS

INCORPORATED
PHILADELPHIA 37, PENNA.

PRICE SHEET R-60 EFFECTIVE MAY 2, 1960

DELTA
R-60

SUGGESTED RESALE PRICES FOR INDUSTRIAL CONSUMERS

SMALL ORDER SURCHARGE

A 10% surcharge will apply to all orders specifying
less than 5 dozen American Pattern Files or 3 dozen Milled Tooth Files.

RASPS

	6"	8"	10"	12"	14"	16"
WOOD RASPS						
Flat Bastard	...	14.40	19.56	26.76	35.28	...
Half Round	12.48	15.36	20.88	28.68	37.92	50.16
Bastard	...	20.88	28.68	37.92	...	...
Smooth	...	...	...	...	...	...
Cabinet	15.36	19.56	26.76	34.80	45.24	...
Second Cut	...	23.64	31.68	40.92	...	...
Smooth	...	...	...	...	...	...

	8"	10"	12"	14"	16"	18"
SHOE RASPS						
Half Round	10.08	13.68	...	...	...	...
HORSE RASPS						
Plain	...	...	12.72	...	...	...
Plain Slim	...	...	...	...	...	25.80
Tanged	...	...	...	23.04	...	...

MILLED TOOTH FILES

	8"	10"	12"	14"
CURVED TOOTH				
Flexible				
Standard	26.52	33.24	39.96	45.24
Fine	31.92	38.76	45.36	52.08
Smooth	...	...	47.40	54.84
Flat Tanged				
Babbitt	32.52	38.04	45.84	49.92
Standard	25.32	30.96	37.20	43.80
Fine	29.28	35.52	42.00	48.84
Smooth	32.04	38.04	44.04	51.12
Utility	29.04	34.68	40.68	47.40
VELVO FINISHER				
Flexible	...	...	...	42.00
Tanged	...	...	...	41.28
OFFSET WOOD HANDLES				
For Velvo Flexible Files	...	...	...	16.56

	8"	10"	12"	14"
CURVED TOOTH				
Half Round Tanged				
Standard	29.64	34.92	41.64	48.72
Fine	33.60	39.60	46.08	53.40
Pillar Tanged				
Standard	27.72	33.84	41.16	...
Square Tanged				
Standard	26.52	32.40	39.00	...
Half Round Moulding				
Standard	29.64	34.92	41.64	48.72
Half Round Shell				
Standard	29.64	34.92	41.64	48.72
Fine	...	...	...	53.40
ZIPPER				
Blade Only	...	...	...	78.60
Handle Only	...	...	...	61.68

MISCELLANEOUS ITEMS

COIL FILES		Per Doz.
Magneto (Doz. Boxes)	...	3.12
Red Seal (Doz. Boxes)	...	1.68
Red Seal (Bulk)	...	1.56

FILE CARD and BRUSH		Per Doz.
Combination File Card and Brush	...	16.44

PACKAGING


STANDARD PACKAGES—All files up to and including 10 inches packed 1 dozen to box. Sizes 12 inches and larger packed 1/2 dozen to box.
Less than full boxes plus 10%.

DELTA BISCA FILES

BISCA . . . an Improved Bastard Cut File that removes metal more rapidly, leaves a smooth finish and lasts 25 to 40% longer.

As the name BISCA implies, here is a modern file for modern industry that cuts efficiently on Brass, Iron, Steel, Copper and Aluminum alloys.

DELTA FLAT BISCA




Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
8	$1\frac{3}{16} \times \frac{7}{32}$	3½ lb.	12
10	1 x ¼	7 lb.	12
12	$1\frac{3}{16} \times \frac{17}{64}$	10¼ lb.	6
14	$1\frac{1}{8} \times \frac{19}{64}$	15½ lb.	6
16	$1\frac{17}{32} \times \frac{11}{32}$	23½ lb.	6

DELTA HALF ROUND BISCA (Not Illustrated)

Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
8	$\frac{3}{4} \times \frac{7}{32}$	3 lb.	12
10	$\frac{15}{16} \times \frac{9}{32}$	5½ lb.	12
12	$1\frac{1}{8} \times \frac{11}{32}$	9½ lb.	6
14	$1\frac{5}{16} \times \frac{13}{32}$	14½ lb.	6

DELTA SQUARE BISCA



Length Inches	Width	Weight Per Dozen	Packed Per Box
8	$\frac{5}{16}$	2 lb.	12
10	$\frac{3}{8}$	4 lb.	12
12	$\frac{1}{2}$	8 lb.	6
14	$\frac{5}{8}$	14½ lb.	6

DELTA PARALLEL LATHE FILES



Long angle, single cut teeth with the edges left safe. Made on a heavy blank to minimize springing in use.

Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
10	1 x ¼	7½ lb.	12
12	$1\frac{3}{16} \times \frac{17}{64}$	11¾ lb.	6
14	$1\frac{3}{8} \times \frac{19}{64}$	18½ lb.	6

DELTA PILLAR FILES



A narrow double cut file, parallel in width but tapered in thickness. Has two safe (uncut) edges.

Length Inches	Approx. Size, Inches	Made in Bastard, Second Cut and Smooth	Weight Per Dozen	Packed Per Box
6	$\frac{1}{2} \times \frac{5}{32}$		1¾ lb.	12
8	$\frac{5}{8} \times \frac{7}{32}$		3 lb.	12
10	$\frac{3}{4} \times \frac{1}{4}$		5¾ lb.	12
12	$\frac{27}{32} \times \frac{9}{32}$		12 lb.	6

DELTA KNIFE FILES



So named from resemblance to a knife blade. Double cut both sides—single cut on edge. Particularly suited on work having acute angles.

Length Inches	Approx. Size, Inches	Made in Bastard, Second Cut and Smooth	Weight Per Dozen	Packed Per Box
4	$\frac{15}{32} \times \frac{7}{64}$		½ lb.	12
6	$\frac{11}{16} \times \frac{5}{32}$		1½ lb.	12
8	$\frac{7}{8} \times \frac{3}{16}$		3 lb.	12
10	$1\frac{1}{16} \times \frac{1}{4}$		5½ lb.	12

DELTA FLAT FILES



The most commonly used double-cut file. Both edges are cut.

Length Inches	Approx. Size, Inches	Made in Bastard, Second Cut and Smooth	Weight Per Dozen	Packed Per Box
4	$\frac{7}{16} \times \frac{7}{64}$		$\frac{1}{2}$ lb.	12
6	$\frac{9}{8} \times \frac{5}{32}$		$1\frac{1}{2}$ lb.	12
8	$\frac{13}{16} \times \frac{7}{32}$		$3\frac{1}{2}$ lb.	12
10	$1 \times \frac{1}{4}$		7 lb.	12
12	$\frac{13}{16} \times \frac{17}{64}$		$10\frac{1}{4}$ lb.	6
14	$\frac{13}{8} \times \frac{19}{64}$		$15\frac{1}{2}$ lb.	6
16	$\frac{117}{32} \times \frac{11}{32}$		$23\frac{1}{2}$ lb.	6
18	$\frac{123}{32} \times \frac{23}{64}$		30 lb.	6

DELTA HAND FILES



Hand files are double cut and are parallel in width, but tapered in thickness. They have one cut edge, the other being left safe (uncut).

Length Inches	Approx. Size, Inches	Made in Bastard, Second Cut and Smooth	Weight Per Dozen	Packed Per Box
6	$\frac{5}{8} \times \frac{5}{32}$		$1\frac{1}{2}$ lb.	12
8	$\frac{13}{16} \times \frac{7}{32}$		$3\frac{1}{4}$ lb.	12
10	$1 \times \frac{1}{4}$		$6\frac{1}{2}$ lb.	12
12	$\frac{13}{16} \times \frac{17}{64}$		11 lb.	6
14	$\frac{13}{8} \times \frac{19}{64}$		16 lb.	6

DELTA HALF-ROUND FILES



An extremely useful file—section rounded on one side, flat on the other. Flat sides of all Half-Round Files are double cut.

Length Inches	Approx. Size, Inches	Made in Bastard, Second Cut and Smooth	Weight Per Dozen	Packed Per Box
4	$\frac{7}{16} \times \frac{1}{8}$		$\frac{1}{2}$ lb.	12
6	$\frac{9}{8} \times \frac{5}{32}$		$1\frac{1}{2}$ lb.	12
8	$\frac{3}{4} \times \frac{7}{32}$		3 lb.	12
10	$\frac{15}{16} \times \frac{9}{32}$		$5\frac{1}{2}$ lb.	12
12	$\frac{17}{8} \times \frac{11}{32}$		$9\frac{1}{2}$ lb.	6
14	$\frac{15}{16} \times \frac{13}{32}$		$14\frac{1}{2}$ lb.	6
16	$1\frac{1}{2} \times \frac{29}{64}$		22 lb.	6

DELTA ROUND FILES



Furnished double cut in Bastard pattern 6" and longer, and in Second Cut Pattern 12" and longer. All others furnished single cut.

Length Inches	Approx. Size, Inches	Made in Bastard, Second Cut and Smooth	Weight Per Dozen	Packed Per Box
4	$\frac{5}{32}$		$\frac{1}{4}$ lb.	12
6	$\frac{7}{32}$		$\frac{3}{4}$ lb.	12
7	$\frac{1}{4}$		$1\frac{1}{4}$ lb.	12
8	$\frac{5}{16}$		$1\frac{3}{4}$ lb.	12
10	$\frac{3}{8}$		$3\frac{1}{4}$ lb.	12
12	$\frac{1}{2}$		$7\frac{1}{4}$ lb.	6
14	$\frac{5}{8}$		12 lb.	6
16	$\frac{3}{4}$		21 lb.	6

DELTA SQUARE FILES



All Delta Square files are furnished double cut and are cut on all four sides.

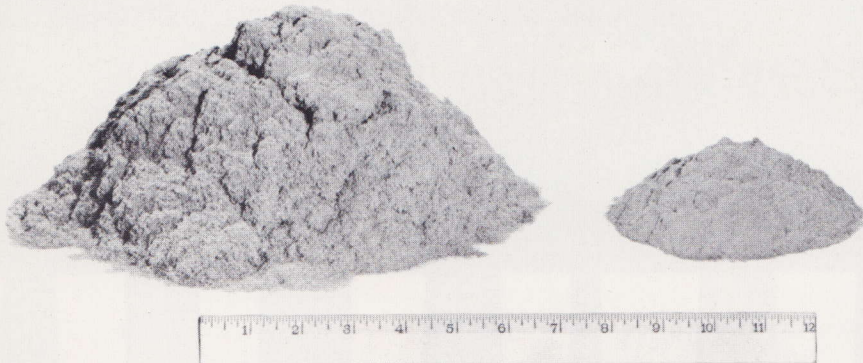
Length Inches	Approx. Size, Inches	Made in Bastard, Second Cut and Smooth	Weight Per Dozen	Packed Per Box
4	$\frac{5}{32}$		$\frac{1}{2}$ lb.	12
6	$\frac{7}{32}$		1 lb.	12
8	$\frac{5}{16}$		2 lb.	12
10	$\frac{3}{8}$		4 lb.	12
12	$\frac{1}{2}$		8 lb.	6
14	$\frac{5}{8}$		$14\frac{1}{2}$ lb.	6
16	$\frac{3}{4}$		24 lb.	6

DELTA BISCA FILES

CUT FASTER—LAST LONGER

Here's Scientific Proof You Can See

FILE TEST RESULTS ENDURANCE TEST ON TOOL STEEL R^C30/32



DELTA BISCA

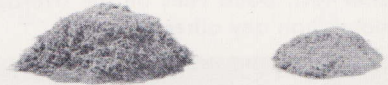
1 SIDE WORN OUT AT
94,000 STROKES
1975.14 GRAMS

"M" FILE

1 SIDE WORN OUT AT
17,000 STROKES
288.60 GRAMS

500 STROKE FILE TEST RESULTS

TOOL STEEL-R^C30/32



DELTA BISCA
32 GRAMS

"M" FILES
19 GRAMS

BRASS



DELTA BISCA
89 GRAMS

"M" FILES
39 GRAMS

CAST IRON



DELTA BISCA
56 GRAMS

"M" FILE
28 GRAMS

Seeing is believing—The unretouched photographs above show the results of an unbiased, scientific test between the Bisca File and a competitive file of a similar nature—identified as Brand "M".

Tests were conducted on three basic metals used in industry. Both files were 14" flat shapes.

PURPOSE OF TESTS—First 500 stroke tests were made to evaluate initial cutting efficiency. As the maximum productive capacity of a file is its true measure of efficiency, an endurance test was conducted on steel. Both files were run to destruc-

tion to determine maximum cutting efficiency and cutting life.

TESTING METHODS—The Duplex File Testing Machine was used with identical filing conditions for both files—6" stroke—35 lbs. pressure—55 strokes per minute.

Steady, straight strokes give each tooth the proper filing pressure. Unchanged and untiring—nothing changes but the files as they gradually wear.

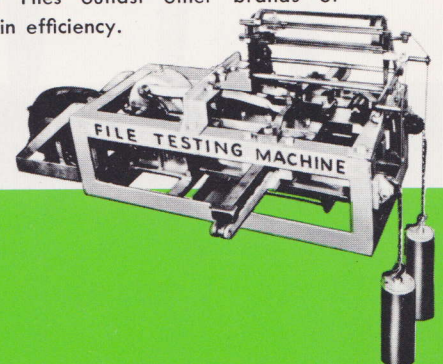
Unlike hand testing, the results can be duplicated any time under identical conditions. The results depend on the file—not the man.

TEST RESULTS

1. Bisca Files cut faster than this competitive brand or any similar file.
2. Bisca Files outlast other brands of files in efficiency.

DUPLEX FILE TESTING MACHINE

Recognized for over 30 years as an unbiased method to measure scientifically the cutting performance of two files simultaneously.



BRASS
IRON
STEEL
COPPER
ALUMINUM

DELTA FILES CUT COSTS ON EVERY HAND FILING JOB

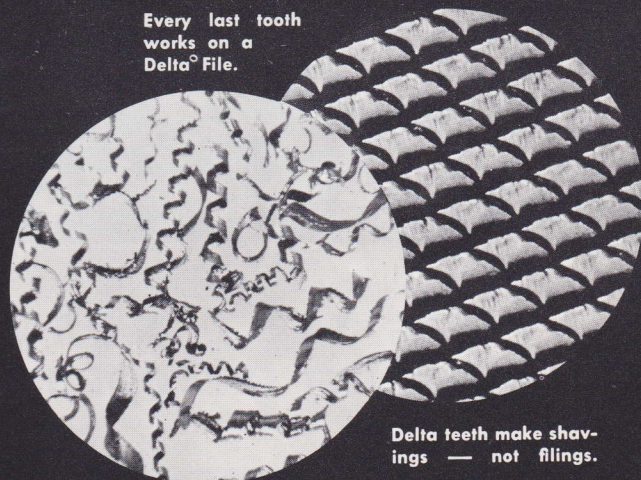
There's no job that can't be done better by a Delta File . . . done in less time, with less labor.

Yes, you get two plus features in every Delta File you buy; more work per stroke and longer cutting life.

The reason . . . all Delta File teeth are precision cut. Every tooth alike in size and shape; every tooth the same height, to 1/1000th of an inch. That means every tooth is a worker; every tooth does its full share of the cutting job.

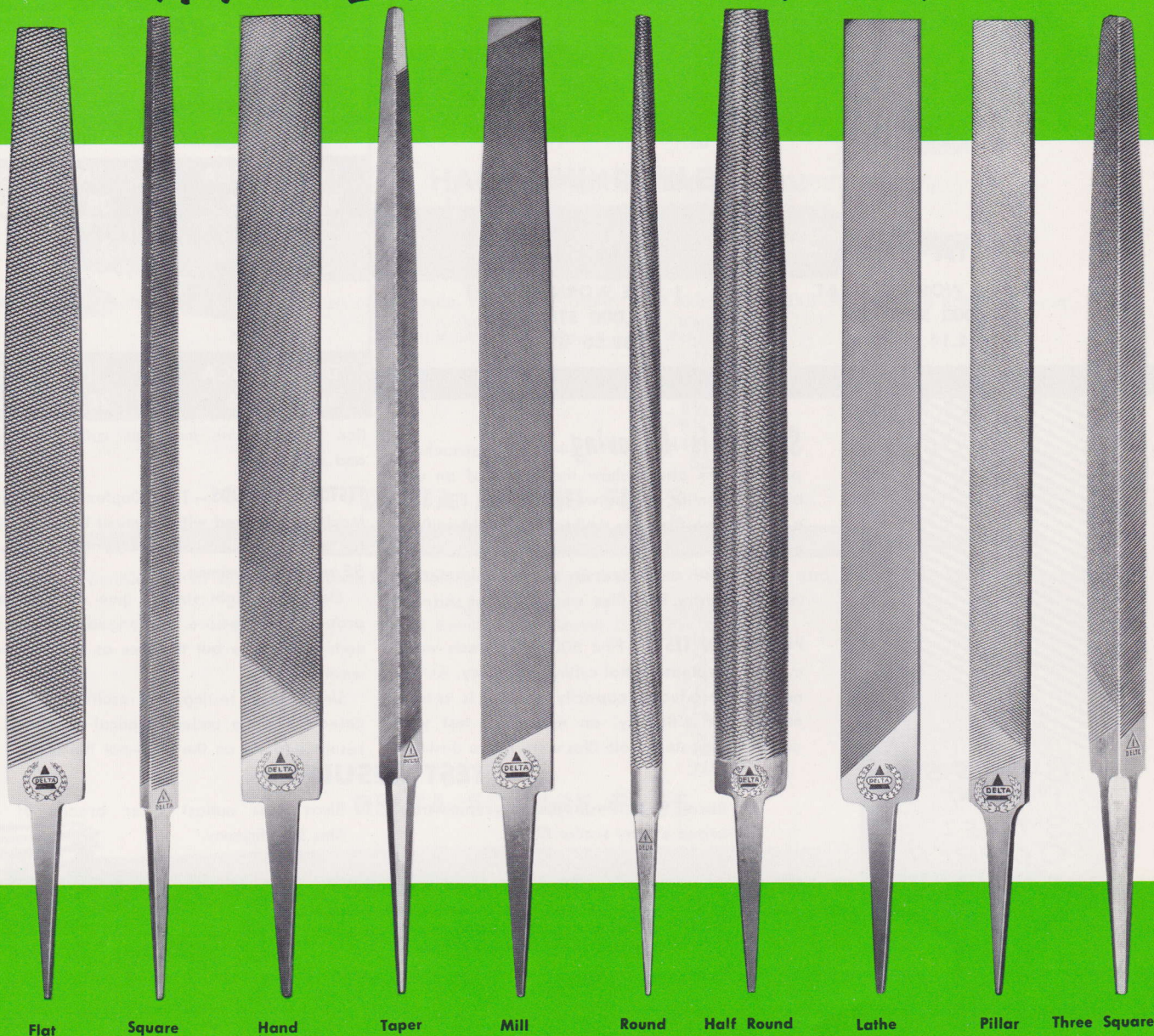
Look at the two microscopic views at the right — one shows you a close-up of Delta File teeth . . . the other, the shavings they make. No wonder then in test after test, Delta Files on the average remove 25% more metal than any other brand.

Every last tooth
works on a
Delta[®] File.



Delta teeth make shavings — not filings.

A Few "Leaders" from the Delta Line



Flat

Square

Hand

Taper

Mill

Round

Half Round

Lathe

Pillar


Three Square

DELTA FILE WORKS, Incorporated • Philadelphia 37, Pa.

DELTA SAW FILES


A complete line of Triangular or Three Cornered Files to sharpen the wide variety of saws having 60° angle teeth. These files are single cut with edges cut for filing the gullet between the saw teeth.

DELTA REGULAR TAPER SAW FILES




Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
6	$\frac{1}{2}$	2 lb.	12
7	$\frac{9}{16}$	3 lb.	12
8	$\frac{5}{8}$	4 $\frac{1}{4}$ lb.	12
10	$\frac{3}{4}$	7 lb.	12

SLIM TAPER SAW FILES




Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
4	$\frac{1}{4}$	$\frac{1}{4}$ lb.	12
5	$\frac{5}{16}$	1 lb.	12
6	$\frac{3}{8}$	1 $\frac{1}{4}$ lb.	12
7	$\frac{13}{32}$	2 lb.	12
8	$\frac{1}{2}$	3 lb.	12
10	$\frac{19}{32}$	5 $\frac{1}{4}$ lb.	12

DELTA EXTRA SLIM TAPER SAW FILES




Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
4	$\frac{3}{16}$	$\frac{1}{4}$ lb.	12
5	$\frac{7}{32}$	$\frac{1}{2}$ lb.	12
5 $\frac{1}{2}$	$\frac{1}{4}$	$\frac{1}{2}$ lb.	12
6	$\frac{9}{32}$	$\frac{3}{4}$ lb.	12
7	$\frac{11}{32}$	$\frac{3}{4}$ lb.	12
8	$\frac{13}{32}$	1 lb.	12

DELTA DOUBLE EXTRA SLIM TAPER SAW FILES



Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
4	$\frac{5}{32}$	$\frac{1}{4}$ lb.	12
5	$\frac{3}{16}$	$\frac{1}{2}$ lb.	12
6	$\frac{7}{32}$	$\frac{1}{2}$ lb.	12
7	$\frac{1}{4}$	1 lb.	12
8	$\frac{5}{16}$	1 $\frac{1}{4}$ lb.	12

DELTA DOUBLE ENDER FILES




Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
6	$\frac{3}{16}$	$\frac{1}{2}$ lb.	12
7	$\frac{7}{32}$	$\frac{3}{4}$ lb.	12
8	$\frac{9}{32}$	1 lb.	12
9	$\frac{11}{32}$	1 $\frac{3}{4}$ lb.	12
10	$\frac{3}{8}$	2 $\frac{1}{4}$ lb.	12


DELTA HAND SAW FILES

Made in three sizes that take the place of thirty or more sizes formerly bought from habit. These three files are all that are required to file hand saws from 4 to 12 point, also panel saws. Single cut on all three sides and three edges.


DELTA EXPERT'S CHOICE

				
For large saws with 4 to 7 points but wide enough to use the double edge for filing small saws.				
Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box	
8	$\frac{5}{16}$	1 $\frac{1}{4}$ lb.	12	


DELTA MECHANIC'S FAVORITE

				
For filing saws with 6 to 10 points.				
Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box	
7	$\frac{1}{4}$	$\frac{3}{4}$ lb.	12	

DELTA CARPENTER'S SPECIAL

				
Designed for filing small saws with 10 to 12 points and sharp gullets.				
Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box	
5½	¼	½ lb.	12	

DELTA FLAT WOOD RASPS

				
Same shape as flat file. Rasp cut on flat sides. File cut on edges.				
Length Inches	Approx. Size, Inches	Made in Bastard Cut Only	Weight Per Dozen	Packed Per Box
8	$1\frac{3}{16} \times \frac{9}{32}$		$3\frac{1}{2}$ lb.	12
10	$1 \times \frac{11}{32}$		7 lb.	12
12	$1\frac{1}{16} \times \frac{13}{32}$		$11\frac{1}{2}$ lb.	6
14	$1\frac{3}{8} \times \frac{15}{32}$		$18\frac{3}{4}$ lb.	6

DELTA CABINET RASPS

The cabinet shape is a modified half-round. Rasp cut on flat and convex sides, file cut on edges.

Length Inches	Approx. Size, Inches	Made in Second Cut and Smooth	Weight Per Dozen	Packed Per Box
6	$2\frac{3}{32} \times \frac{3}{16}$		1½ lb.	12
8	$1\frac{5}{16} \times \frac{1}{4}$		2¾ lb.	12
10	$1\frac{1}{8} \times \frac{9}{32}$		5½ lb.	12
12	$1\frac{5}{16} \times \frac{11}{32}$		9½ lb.	6
14	$1\frac{9}{16} \times \frac{13}{32}$		14 lb.	6

DELTA HALF ROUND WOOD RASPS

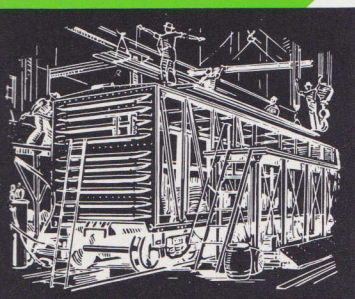
Rasp cut on flat and convex sides of the regular half-round shape. File cut on edges.

Length Inches	Approx. Size, Inches	Made in Bastard and Smooth	Weight Per Dozen	Packed Per Box
6	$\frac{5}{8} \times \frac{15}{64}$		1½ lb.	12
8	$1\frac{1}{16} \times \frac{5}{16}$		3¾ lb.	12
10	1 x $\frac{13}{32}$		6¾ lb.	12
12	$1\frac{3}{16} \times \frac{15}{32}$		10¾ lb.	6
14	$1\frac{3}{8} \times \frac{17}{32}$		16½ lb.	6
16	$1\frac{9}{16} \times \frac{37}{64}$		24 lb.	6

All Industries Acclaim the "Cost Cutting" Features of **DELTA BISCA FILES**

Delta Bisca Files are an improved bastard cut file that removes metal more rapidly, leaves a smooth finish and lasts 25 to 40% longer. This new file pattern is also versatile in use as it cuts with equal efficiency on Brass, Iron, Steel, Copper and Aluminum alloys as well as on tough plastics.

READ THESE INDUSTRY REPORTS ON BISCA FILE PERFORMANCE.



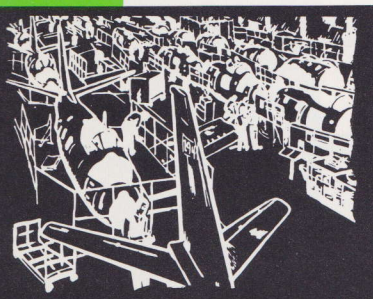
**RAILROAD
SHOP**

"... after using them for testing period, BISCA is 50% better than the very best bastard file."



**METAL
ACCESSORIES
SHOP**

"The men using the BISCAS tell me it is the best file they have ever used. BISCAS would be in good condition after three weeks use; in that time we would have used three bastards."



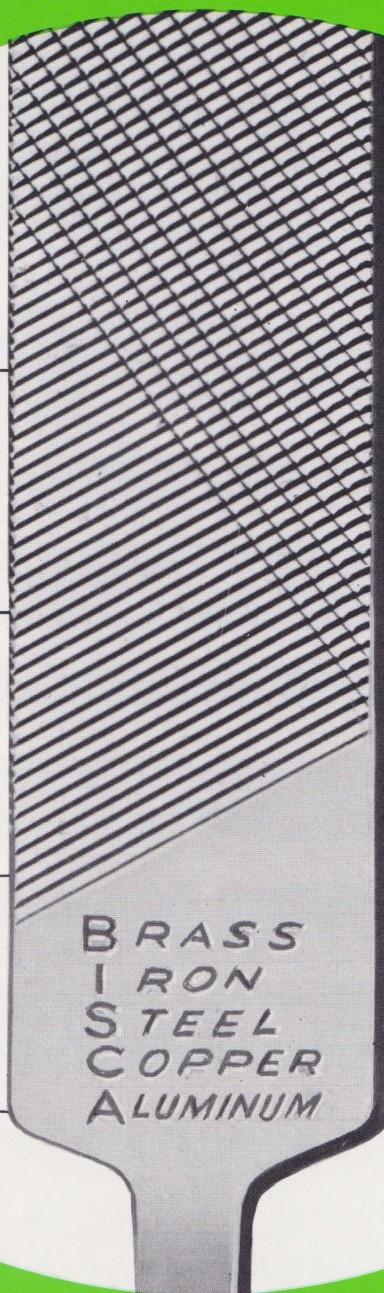
**AIRCRAFT
PLANT**

"... after experimentation with all possible files for filing aluminum alloys we find that BISCAS give 100% more service."



**AUTOMOBILE
PLANT**

"... twice the work in the same time when using BISCAS."



Test the cutting speed and versatility of Bisca Files against the files you are now using.

Delta Bisca Files are available in the flat, half round and square patterns.

DELTA

The File that does a Full Time Job

Scientific proof from the famous Duplex File Testing Machine.

Photographs at left show the results of two recent tests when Delta Files were pitted against two other well-known brands. The test conditions were identical—same tool steel, same pressure, same number of cutting strokes. The filings were caught separately in scale pans hung from balance beams and accurately weighed. Tests of this type continue to prove the added cutting efficiency of Delta Files.

Yes,—Delta Files remove an average of 25% more metal than any other brand.

DELTA
14" Flat Bast.
10,000 Strokes
18 oz.



BRAND X
14" Flat Bast.
10,000 Strokes
11 oz.



DELTA
12" Flat Bast.
10,000 Strokes
13 oz.



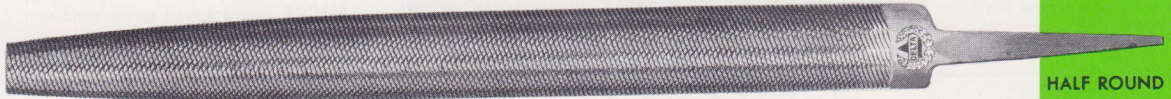
BRAND Y
12" Flat Bast.
10,000 Strokes
10 oz.



FLAT



ROUND



HALF ROUND



SQUARE



MILL



TAPER

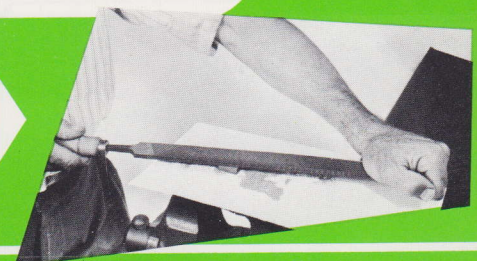


LATHE

Delta Files cut faster. Want to prove it yourself?

Simply place in a vise a bar of the test metal you want filed. Take 100 strokes with a Delta File, collecting the filings on a piece of paper. Do the same with your present file. Weigh the two sets of filings on the best scales available.

DELTA FILE WORKS, Inc. • Philadelphia 37, Pa.



DELTA MILL FILES



A single cut file originally made for filing mill saws. Widely used in machine shops also, due to its smooth shearing action. Made with two square edges. Both edges are cut. Also furnished with Two Round Edges (two rounded cut edges) and with One Round Edge (one round and one square edge, both cut).

Length Inches	Approx. Size, Inches	Made in Bastard, Second Cut and Smooth	Weight Per Dozen	Packed Per Box
4	$\frac{7}{16} \times \frac{5}{64}$		$\frac{1}{2}$ lb.	12
6	$\frac{5}{8} \times \frac{1}{8}$		$1\frac{1}{4}$ lb.	12
7	$\frac{45}{64} \times \frac{1}{8}$		2 lb.	12
8	$\frac{13}{16} \times \frac{5}{32}$		$2\frac{3}{4}$ lb.	12
10	$1 \times \frac{3}{16}$		$5\frac{1}{4}$ lb.	12
12	$1\frac{3}{16} \times \frac{1}{32}$		9 lb.	6
14	$1\frac{3}{8} \times \frac{1}{4}$		13 lb.	6
16	$1\frac{17}{32} \times \frac{9}{32}$		20 lb.	6

DELTA LANCE TOOTH CROSS CUT FILES



Single cut like a Mill Bastard File but parallel in both width and thickness. Both edges cut. The greater width at the point makes this file particularly efficient in filing cross cut saws. Also known as Mill Blunt Bastard.

Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
6	$\frac{5}{8} \times \frac{1}{8}$	$1\frac{1}{4}$ lb.	12
7	$\frac{45}{64} \times \frac{1}{8}$	2 lb.	12
8	$\frac{13}{16} \times \frac{5}{32}$	$2\frac{3}{4}$ lb.	12
10	$1 \times \frac{3}{16}$	$5\frac{1}{4}$ lb.	12

DELTA CANT SAW FILES



Single cut on all three sides—two edges cut. A special three-sided shape used for sharpening certain types of cross cut, circular and buck saws.

Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
6	$\frac{17}{32} \times \frac{13}{64}$	$1\frac{1}{4}$ lb.	12
8	$\frac{11}{16} \times \frac{17}{64}$	3 lb.	12
10	$\frac{13}{16} \times \frac{5}{16}$	5 lb.	12

DELTA GREAT AMERICAN CROSS CUT FILES



Single cut. Designed for filing Great American Cross Cut saws. The rounded back is cut for filing gullets.

Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
6	$\frac{9}{16} \times \frac{15}{64}$	$1\frac{3}{4}$ lb.	12
8	$\frac{11}{16} \times \frac{9}{32}$	4 lb.	12
10	$\frac{13}{16} \times \frac{3}{8}$	$6\frac{1}{4}$ lb.	12

DELTA REGULAR BANDSAW, BLUNT



Single cut. For filing bandsaws with well rounded gullets. Has heavy rounded cut edges. Also furnished in Slim Bandsaw, blunt pattern.

Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
6	$\frac{1}{2}$	$2\frac{1}{4}$ lb.	12
8	$\frac{5}{8}$	$4\frac{3}{4}$ lb.	12

DELTA THREE SQUARE FILES



A triangular file for machine shop use, not a saw file. Double cut on all three sides. The edges are sharp, not cut.

Length Inches	Approx. Size, Inches	Made in Bastard, Second Cut and Smooth	Weight Per Dozen	Packed Per Box
6	$\frac{1}{2}$		$2\frac{1}{4}$ lb.	12
8	$\frac{5}{8}$		$4\frac{1}{4}$ lb.	12
10	$\frac{3}{4}$		$6\frac{1}{2}$ lb.	12
12	$\frac{7}{8}$		12 lb.	6

DELTA WARDING FILES



Named from its original use for filing the wards or notches in keys. Useful where a thin file is desired. Double cut both sides. Both edges cut.

Length Inches	Approx. Size, Inches	Made in Bastard, Second Cut and Smooth	Weight Per Dozen	Packed Per Box
4	$\frac{7}{16} \times \frac{1}{16}$		$\frac{1}{2}$ lb.	12
6	$\frac{5}{8} \times \frac{5}{64}$		1 lb.	12
8	$\frac{25}{32} \times \frac{3}{32}$		2 lb.	12
10	$\frac{15}{16} \times \frac{1}{8}$		$3\frac{1}{2}$ lb.	12

DELTA HALF-ROUND ALUMINUM FILES



A double cut file for filing aluminum, zinc, brass and other soft metals.

Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
6	$\frac{5}{8} \times \frac{5}{32}$	$1\frac{1}{2}$ lb.	12
8	$\frac{3}{4} \times \frac{1}{32}$	3 lb.	12
10	$\frac{15}{16} \times \frac{9}{32}$	$5\frac{1}{2}$ lb.	12
12	$1\frac{1}{8} \times \frac{11}{32}$	$9\frac{1}{2}$ lb.	6

DELTA FLAT FOUNDRY FILES



A flat double cut file for snagging castings and filing narrow edges and sharp corners from dies. Strong, rugged teeth. Both edges are single cut. Also furnished in half-round pattern.

Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
8	$\frac{13}{16} \times \frac{7}{32}$	$3\frac{1}{2}$ lb.	12
10	$1 \times \frac{1}{4}$	7 lb.	12
12	$\frac{13}{16} \times \frac{17}{64}$	$10\frac{1}{4}$ lb.	6
14	$1\frac{3}{8} \times \frac{19}{64}$	$15\frac{1}{2}$ lb.	6

DELTA FLEXIBLE BLADE VELVO FINISHER



A fast cutting, smooth-finishing body file. Teeth are milled, not chisel cut. Used with holder either flat or slightly convex. Also furnished tanged.

Length Inches	Approx. Size, Inches	Weight Per Dozen	Packed Per Box
14	$1\frac{11}{32} \times \frac{7}{32}$	9 lb.	6

